2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Thumb Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E01R_THU01A00 **TMDL MAP ID:** VAN-E01R-01

SEGMENT SIZE: 6.91 - Miles

INITIAL LISTING: 1996 **TMDL Schedule:** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Confluence w/West Branch Thumb Run

RIVER MILE: 6.91

LATITUDE: 38.79028 **LONGTITUDE:** -77.97028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.71167 **LONGTITUDE:** -77.99583

Segment begins at the confluence of West Branch Thumb Run and East Branch Thumb Run downstream to its confluence to Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE: **IMPAIRMENT SOURCE**

Sediments - Zinc

SUMMARY:

The DEQ maintains an ambient water quality monitoring station (3-THU004.69) at Route 770. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (4 of 16 samples - 25%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to an exceedance of the ER-M for zinc (410 ppm, dry weight) in sediment collected in June, 1997.

A fecal coliform TMDL for the Thumb Run watershed was delevoped and submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Great Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E02R_GRT01A00 **TMDL MAP ID:** VAN-E02R-02

SEGMENT SIZE: 2.76 - Miles

INITIAL LISTING: 1998 **TMDL Schedule:** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 2.76

LATITUDE: 38.64750 **LONGTITUDE:** -77.84750

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.62083 **LONGTITUDE:** -77.86028

Segment begins at the confluence of an unnamed tributary to Great Run, approximately 1.0 rivermile upstream of Rt. 687, and continues downstream to its confluence with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Phosphorus	Unknown

SUMMARY:

The DEQ maintains an ambient water quality monitoring station (3-GRT001.70) at Route 687. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (3 of 19 samples - 15.8%).

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Rappahannock

STREAM NAME: Rush River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E05R_RUS02A02 **TMDL MAP ID:** VAN-E05R-01

SEGMENT SIZE: 4.55 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 8.78

LATITUDE: 38.73472 **LONGTITUDE:** -78.19306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Big Branch

RIVER MILE: 4.23

LATITUDE: 38.69639 **LONGTITUDE:** -78.15472

Segment begins at the confluence of an unnamed tributary to Rush River and continues downstream to its confluence with Big Branch, approximately 0.98 rivermiles upstream of Route 621.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Sediments - Total DDT, DDT, DDE, General Standard (Benthic)	Unknown

SUMMARY:

The DEQ maintains an ambient water quality monitoring station (3-RUS005.66) at Route 211/522. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to exceedances of the ER-M for total DDT (46.1 ppb, dry weight), DDT (7 ppb, dry weight), and DDE (20 ppb, dry weight) in sediment collected in July, 1997.

In addition, citizen monitoring station 3RUS-6-SOS below Old Washington Road finds medium probability of adverse conditions. As a result, this stream segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Thorton River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E06R_THO01A02 **TMDL MAP ID:**

SEGMENT SIZE: 1.57 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 1.57

LATITUDE: 38.61750 **LONGTITUDE:** -78.00583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Hazel River

RIVER MILE: 0.00

LATITUDE: 38.60306 **LONGTITUDE:** -78.00278

Segment starts at the confluence of an unnamed tributary to the Thorton River, at rivermile 1.6 (approximately), and continues downstream to the confluence of the Thorton River with the Hazel River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3THO-SOS at the Route 628 bridge finds medium probability of adverse conditions. As a result, 1.57 stream miles were assessed as fully supporting but threatened of the Clean Water Act's Aquatic Life Use goal in the 2002 305(b) report.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Marsh Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E08R_MAH03A00 **TMDL MAP ID:**

SEGMENT SIZE: 3.72 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Marsh Run

RIVER MILE: 11.88

LATITUDE: 38.58389 **LONGTITUDE:** -77.70222

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Craig Run

RIVER MILE: 8.16

LATITUDE: 38.56389 **LONGTITUDE:** -77.75833

Segment begins at the headwaters of Marsh Run and continues downstream to the confluence of Craig Run to Marsh Run

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Threatened, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Fecal Coliform	Unknown
Phosphorus	

SUMMARY:

Data from the citizen monitoring station (3MAH-JMS) at the Route 17 bridge near Bealeton resulted in an assessment of fully supporting but threatened for the Clean Water Act's Swimmable Use and the Aquatic Life Use goals of in the 2002 305(b) report. Two of six samples exceeded the instantaneous fecal coliform bacteria standard (1000/100 ml), and three of eight samples exceeded the phosphorous screening value (200 ug/L).

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Fauquier

STREAM NAME: Bowens Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E08R_BWN01A02 **TMDL MAP ID:**

SEGMENT SIZE: 3.66 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Bowens Run

RIVER MILE: 3.66

LATITUDE: 38.60917 **LONGTITUDE:** -77.79444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Craig Run

RIVER MILE: 0.00

LATITUDE: 38.56694 **LONGTITUDE:** -77.77194

Segment begins at the headwaters of Bowens Run downstream to the confluence with Craig Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3-BWN-SOS finds medium probability of adverse conditions. As a result, 3.66 stream miles were assessed as fully supporting but threatened of the Clean Water Act's Aquatic Life Use goal in the 2002 305(b) report.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Lake Pelham

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E09L_MTN01A02 **TMDL MAP ID:**

SEGMENT SIZE: 253 - Acres

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Start of Lake Pelham

RIVER MILE: 26.10

LATITUDE: 38.46611 **LONGTITUDE:** -78.04667

DOWNSTREAM LIMIT:

DESCRIPTION: End of Lake Pelham

RIVER MILE: 24.00

LATITUDE: 38.46889 **LONGTITUDE:** -78.01750

Segment includes all of Lake Pelham.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Drinking Water Supply - Threatened, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Manganese	Unknown
Copper	

SUMMARY:

The DEQ maintains a lake monitoring station (3-MTN025.17) in Lake Pelham. The monitoring data from this station resulted in an assessment in the 2002 305(b) report of fully supporting but threatened of the Clean Water Act's Drinking Water Supply and Aquatic Life Use goals due to the following: (1) an exceedance of the manganese taste and odor water quality criterion in one of one sample during the assessment period threatening the public water supply use; (2) an exceedance of the acute copper criterion in one of one sample threatening the aquatic life use. The samples revealing the exceedances of the manganese and copper criteria were collected in August, 1998.

The source of copper may be due to addition of copper sulfate for algal control.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Culpeper

STREAM NAME: Mountain Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E09R_MTN01B00 **TMDL MAP ID:**

SEGMENT SIZE: 10.94 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Outlet from Lake Pelham

RIVER MILE: 24.00

LATITUDE: 38.46889 **LONGTITUDE:** -78.01750

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Jonas Run

RIVER MILE: 13.06

LATITUDE: 38.46944 **LONGTITUDE:** -77.88778

Segment begins at the outlet from Lake Pelham on Mountain Run and continues downstream to its confluence with Jonas Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Fish Tissue - PCBs	Unknown

SUMMARY:

The human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was exceeded in one species (American eel) in 1999 at DEQ's fish tissue/sediment monitoring station 3-MTN014.88 near Route 663. As a result, this segment was assessed as fully supporting but threatened of Clean Water Act's (CWA's) Fish Consumption Use goal in the 2002 305(b) report.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison

STREAM NAME: Robinson River

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E14R_ROB01A00 **TMDL MAP ID:** VAN-E14R-01

SEGMENT SIZE: 3.65 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Rose River

RIVER MILE: 24.65

LATITUDE: 38.47222 **LONGTITUDE:** -78.31528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Leathers Run

RIVER MILE: 21.0

LATITUDE: 38.44583 **LONGTITUDE:** -78.26611

Segment begins at the confluence of the Rose River, just downstream of Route 670, and continues downstream to the confluence with Leathers Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Phosphorus	Unknown

SUMMARY:

The DEQ maintains an ambient water quality monitoring station (3-ROB024.06) at Route 649. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (5 of 21 samples - 23.8%);

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (3 of 21 samples - 14.3%).

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Madison

STREAM NAME: Little Dark Run

HYDROLOGIC UNIT: 02080103

SEGMENT ID.: VAN-E15R_LDR01A00 **TMDL MAP ID:** VAN-E15R-01

SEGMENT SIZE: 4.26 - Miles

INITIAL LISTING: 1994 **TMDL Schedule:** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Little Dark Run

RIVER MILE: 4.26

LATITUDE: 38.36611 **LONGTITUDE:** -78.26889

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Dark Run

RIVER MILE: 0.00

LATITUDE: 38.38306 **LONGTITUDE:** -78.21139

Segment begins at the headwaters of Little Dark Run and continues downstream to its confluence with Dark Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
Phosphorus - 2.27 miles	Unknown

SUMMARY:

The DEQ maintains an ambient monitoring station (3-LDR000.70) at Route 680, and established a special study station (3-LDR003.19) at Route 634. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances. Four of 21 samples (19%) exceeded the instantaneous fecal coliform bacteria standard at station 3-LDR000.70, and 2 of 9 samples exceeded the standard at station 3-LDR003.19;

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening level of 200 ug/L (2 of 10 samples - 20%). This segment is considered fully supporting but threatened of the Aquatic Life Use in the 2.27-mile reach beginning at the headwaters of Little Dark Run continuing downstream to the confluence of an unnamed tributary to Little Dark Run at rivermile 2.17, approximately 0.25 rivermiles upstream from Route 722.

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_MAP04A02 **TMDL MAP ID:**

SEGMENT SIZE: 6.24 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Massaponax Creek

RIVER MILE: 15.90

LATITUDE: 38.28556 **LONGTITUDE:** -77.59722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 9.66

LATITUDE: 38.23833 **LONGTITUDE:** -77.53000

Segment begins at the headwaters of Massaponax Creek and continues downstream to the confluence of an unnamed tributary to Massaponax Creek, approximately 0.25 rivermiles upstream from Route 639.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring stations 3MAP-1-SOS, 3MAP-2-SOS, and 3MAP-4-SOS, located East of Gordon Road, North of Piedmont Drive, and Off Oak Grove Drive, respectively, all find medium probability of adverse conditions. As a result, 6.24 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Stafford, Spotsylvania, Caroline, King George, Fredericksburg, City of

STREAM NAME: Tributaries to Tidal Freshwater Rappahannock River in Waterb

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_RPP20A02 **TMDL MAP ID:**

SEGMENT SIZE: 344.04 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGTITUDE:**

This segment includes free-flowing tributaries to the tidal freshwater Rappahannock River in waterbodies E20R and E21R that are not included in other 303(d) delineated stream segments.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Tributaries to the tidal freshwater Rappahannock River are designated nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. As a result, these waters are considered fully supporting but threatened of the Clean Water Act's Aquatic Life Use goal in the 2002 305(b) report.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_MAP02A02 **TMDL MAP ID:**

SEGMENT SIZE: 6.04 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 7.35

LATITUDE: 38.23500 **LONGTITUDE:** -77.50250

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 1.31

LATITUDE: 38.23333 **LONGTITUDE:** -77.41472

Segment begins at the confluence of an unnamed tributary to Massaponax Creek, just upstream of Route 1, and continues downstream to its confluence with an unnamed tributary, approximately 0.25 rivermiles upstream of Ruffins Pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring stations 3MAP-10-SOS and 3MAP-12-SOS, located at the power line crossing of Lee's Hill Golf Course and east of Route 608, respectively, both find medium probability of adverse conditions. As a result, 6.04 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek, UT

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_XFE01A02 **TMDL MAP ID:**

SEGMENT SIZE: 2.92 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of the unnamed tributary

RIVER MILE: 4.11

LATITUDE: 38.19972 **LONGTITUDE:** -77.47444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with an unnamed tributary

RIVER MILE: 1.19

LATITUDE: 38.21861 **LONGTITUDE:** -77.50889

Segment begins at the headwaters of the unnamed tributary and continues downstream to the confluence of an unnamed tributary (rivercode XFF) at rivermile 1.19.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3MAP-9-SOS, located West of Route 17 near the power line crossing, finds medium probability of adverse conditions. As a result, 2.92 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek, UT

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_XFG01A02 **TMDL MAP ID:**

SEGMENT SIZE: 1.54 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of the unnamed tributary

RIVER MILE: 1.54

LATITUDE: 38.19667 **LONGTITUDE:** -77.51000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with an unnamed tributary

RIVER MILE: 0.00

LATITUDE: 38.21667 **LONGTITUDE:** -77.51333

Segment begins at the headwaters of the unnamed tributary and continues downstream to the confluence to an unnamed tributary (streamcode XFF).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3MAP-8-SOS, located West of Route 17 upstream of the wetlands, finds medium probability of adverse conditions. As a result, 1.54 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_MAP01A02 **TMDL MAP ID:**

SEGMENT SIZE: 0.51 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Outlet from Ruffins Pond

RIVER MILE: 0.51

LATITUDE: 38.24639 **LONGTITUDE:** -77.40444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Rappahannock River

RIVER MILE: 0.00

LATITUDE: 38.25278 **LONGTITUDE:** -77.40278

Segment begins at the outlet from Ruffins Pond and continues downstream to the confluence of Massaponax Creek with the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3MAP-16-SOS, located northeast of Ruffins Pond, finds medium probability of adverse conditions. As a result, 0.51 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Spotsylvania

STREAM NAME: Massaponax Creek, UT

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E20R_XFF01A02 **TMDL MAP ID:**

SEGMENT SIZE: 0.7 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 0.70

LATITUDE: 38.21528 **LONGTITUDE:** -77.52028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with an unnamed tributary

RIVER MILE: 0.00

LATITUDE: 38.21972 **LONGTITUDE:** -77.50972

Segment begins at the confluence of an unnamed tributary, at rivermile 0.7, and continues downstream to the confluence to an unnamed tributary (rivercode XFE).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
General Standard (Benthic)	Unknown

SUMMARY:

Citizen monitoring station 3MAP-7-SOS, located West of Route 17, finds medium probability of adverse conditions. As a result, 0.7 stream miles were assessed as fully supporting but threatened of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report.

In addition, tributaries to the tidal freshwater Rappahannock River are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This designation also results in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal for this segment which is nested within the larger area affected by the NEW designation.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: King George, Caroline

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E21E_RPP04A02 **TMDL MAP ID:** VAN-E21E-02

SEGMENT SIZE: 0.14 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station

RIVER MILE: 92.0

LATITUDE: 38.24583 **LONGTITUDE:** -77.24139

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station

RIVER MILE: 91.0

LATITUDE: 38.24250 **LONGTITUDE:** -77.22528

Segment extends from a half rivermile upstream to a half rivermile downstream of monitoring station 3-RPP091.55 located at Buoy #89 in the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Sufficient fecal coliform bacteria exceedances (7 of 52 samples - 13.5%) were recorded at DEQ's water quality monitoring station (3-RPP091.55) at Buoy #89 in the Rappahannock River to assess this stream segment as partially supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

In addition, this segment is considered fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following: (a) results from the Chesapeake Bay Monitoring Program network of probabilistic stations representing the estuarine benthic community in the tidal freshwater segment of the Rappahannock River; (b) these waters are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area's affected by both the Chesapeake Bay probabilistic monitoring assessment, and the NEW designation.

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: King George, Caroline

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E21E_RPP06A02 **TMDL MAP ID:** VAN-E21E-03

SEGMENT SIZE: 0.1 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station

RIVER MILE: 99.31

LATITUDE: 38.24694 **LONGTITUDE:** -77.33361

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station

RIVER MILE: 98.31

LATITUDE: 38.24306 **LONGTITUDE:** -77.31944

Segment extends from a half rivermile upstream to a half rivermile downstream of monitoring station 3-RPP098.81 located at Buoy #112 in the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Sufficient fecal coliform bacteria exceedances (9 of 48 samples - 18.8%) were recorded at DEQ's water quality monitoring station (3-RPP098.81) at Buoy #112 in the Rappahannock River to assess this stream segment as partially supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

In addition, this segment is considered fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following: (a) results from the Chesapeake Bay Monitoring Program network of probabilistic stations representing the estuarine benthic community in the tidal freshwater segment of the Rappahannock River; (b) these waters are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area's affected by both the Chesapeake Bay probabilistic monitoring assessment, and the NEW designation.

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: King George, Caroline

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAN-E21E_RPP03A02 **TMDL MAP ID:** VAN-E21E-01

SEGMENT SIZE: 0.32 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station

RIVER MILE: 80.69

LATITUDE: 38.18056 **LONGTITUDE:** -77.19333

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station

RIVER MILE: 79.69

LATITUDE: 38.17083 **LONGTITUDE:** -77.18250

Segment extends from a half rivermile upstream to a half rivermile downstream of monitoring station 3-RPP080.19 located at Route 301 in the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Sufficient fecal coliform bacteria exceedances (6 of 51 samples - 11.8%) were recorded at DEQ's water quality monitoring station (3-RPP080.19) at Route 301 in the Rappahannock River to assess this stream segment as partially supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

In addition, this segment is considered fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following: (a) results from the Chesapeake Bay Monitoring Program network of probabilistic stations representing the estuarine benthic community in the tidal freshwater segment of the Rappahannock River; (b) these waters are designated as nutrient enriched waters (NEW-15) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area's affected by both the Chesapeake Bay probabilistic monitoring assessment, and the NEW designation.

The source of impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond, Westmoreland

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP05A02 **TMDL MAP ID:** VAP-E22E-04

SEGMENT SIZE: 105.42 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Oligohaline/mesohaline boundary

RIVER MILE: 48.51

LATITUDE: 37.98600 **LONGTITUDE:** -76.90800

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Chesapeake Bay

RIVER MILE: 0.00

LATITUDE: 37.58750 **LONGTITUDE:** -76.28890

The mesohaline portion of the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Benthics	Unknown

SUMMARY:

Assessed fully supporting but threatened of the Aquatic Life Use because of the results of the Chesapeake Bay random (probabilistic) benthic study.

Weight of evidence approach indicates potential toxicity at RP10, RP9, RP-5, RP-3, and RP-1

The source of the impairment is considered unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond, Westmoreland

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP04A02 **TMDL MAP ID:** VAP-E22E-05

SEGMENT SIZE: 1.71 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: River mile 49.04

RIVER MILE: 49.04

LATITUDE: 37.99370 **LONGTITUDE:** -76.90960

DOWNSTREAM LIMIT:

DESCRIPTION: River Mile 48.04

RIVER MILE: 48.04

LATITUDE: 37.98220 **LONGTITUDE:** -76.90140

The Rappahannock River from approximately river mile 49.04 to river mile 48.04

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Fish Tissue - Arsenic	Unknown

SUMMARY:

Arsenic in flounder at MAIA stations MA97/98-0067 and MA98-0959

The source of the impairment is considered unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond, Westmoreland

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP02A02 **TMDL MAP ID:** VAP-E22E-02

SEGMENT SIZE: 2.85 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Tidal freshwater/oligohaline boundary

RIVER MILE: 57.85

LATITUDE: 38.08600 **LONGTITUDE:** -76.97610

DOWNSTREAM LIMIT:

DESCRIPTION: Oligohaline/mesohaline boundary

RIVER MILE: 48.51

LATITUDE: 37.98600 **LONGTITUDE:** -76.90800

The oligohaline portion of the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Benthics	Unknown

SUMMARY:

Chesapeake Bay random benthic study results

Impaired benthic community at Chesapeake Bay fixed station LE 3.2

The source of the impairment is considered unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond, Westmoreland

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP01A02 **TMDL MAP ID:** VAP-E22E-01

SEGMENT SIZE: 15.82 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Fall Line

RIVER MILE: 110.57

LATITUDE: 38.32000 **LONGTITUDE:** -78.47170

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal Freshwater/oligohaline boundary

RIVER MILE: 57.85

LATITUDE: 38.08600 **LONGTITUDE:** -76.97610

The tidal freshwater portion of the Rappahannock River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Benthics	Unknown

SUMMARY:

Chesapeake Bay random benthic study results

In addition, the area is designated a nutrient enriched water and there were chlorophyll A exceedances at 3-RPP064.40.

The source of the impairment is considered unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP03A02 **TMDL MAP ID:** VAP-E22E-03

SEGMENT SIZE: 1.6 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Monitoring station 3-RPP050.04

RIVER MILE: 51.04

LATITUDE: 38.01950 **LONGTITUDE:** -76.91620

DOWNSTREAM LIMIT:

DESCRIPTION: One mile radius

RIVER MILE: 49.04

LATITUDE: 37.99280 **LONGTITUDE:** -76.91010

Rappahannock River, one mile radius around the sampling location at river mile 50.04

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Chlordane	Unknown

SUMMARY:

This segment of the Rappahannock River was assessed fully supporting but threatened of the Aquatic Life Use support goal based on an exceedance of the NOAA ER-M ecological screening value for chlordane in a sediment sample collected at river mile 50.04 in 1996.

The source of the chlordane is considered unknown.

Additional sediment monitoring is recommended to confirm the presence of chlordane, to better delineate the affected segment, and to identify the sources of impairment, if any.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: King George, Caroline, Westmoreland

STREAM NAME: Rappahannock River and tributaries

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP01A02 **TMDL MAP ID:** VAP-E22E-06

SEGMENT SIZE: 373.79 - Miles, Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Fall Line

RIVER MILE: 110.57

LATITUDE: 38.32000 **LONGTITUDE:** -78.47170

DOWNSTREAM LIMIT:

DESCRIPTION: Buoy 44 near Leedstown

RIVER MILE: 57.85

LATITUDE: 37.98120 **LONGTITUDE:** -76.90060

Tidal freshwater Rappahannock River from the fall line to Buoy 44 near Leedstown, Virginia, including all tributaries to their headwaters that enter the tidal freshwater Rappahannock River. Excludes segments where nutrient monitoring indicates full use support.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Designated a Nutrient Enriched Water in the Water Quality Standards

Source is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Westmoreland, Richmond, Essex, Lancaster, Middlesex

STREAM NAME: Rappahannock River and tributaries

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E22E_RPP06A02 **TMDL MAP ID:** VAP-E22E-07

SEGMENT SIZE: 671.23 - Miles, Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Buoy 44 near Leedstown

RIVER MILE: 57.85

LATITUDE: 37.98120 **LONGTITUDE:** -76.90060

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Chesapeake Bay

RIVER MILE: 0.00

LATITUDE: 37.59010 **LONGTITUDE:** -76.28920

Estuarine portion of the Rappahannock River from Buoy 44, near Leedstown, Virginia, to the mouth of the Rappahannock River (Buoy 6), including all tributaries to their headwaters that enter the estuarine portion of the Rappahannock River. Excludes segments where nutrient monitoring indicates full use support.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
Nutrient Enriched Waters designation	Unknown

SUMMARY:

Designated a Nutrient Enriched Water in the Water Quality Standards

Source is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond

STREAM NAME: Bookers Mill Stream

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E24R_BMS01A98 **TMDL MAP ID:** VAP-E24R-01

SEGMENT SIZE: 6.22 - Miles

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 6.22

LATITUDE: 37.88120 **LONGTITUDE:** -76.53490

DOWNSTREAM LIMIT:

DESCRIPTION: Totuskey Creek

RIVER MILE: 0.00

LATITUDE: 37.90970 **LONGTITUDE:** -76.62100

Bookers Mill Stream from its headwaters to its mouth at the confluence with Totuskey Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
Phosphorus	Unknown

SUMMARY:

Bookers Mill Stream was assessed partially supporting of the Swimmable Use support goal based on a fecal coliform violation rate of 5/23 recorded at the Route 612 bridge (3-BMS002.00).

Assessed threatened of the aquatic life use goal because of total phosphorus 4/24 at 3-BMS002.00.

The source of the impairment is considered unknown. Continued monitoring is necessary to increase the data set size and ensure a confident assessment.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Middlesex

STREAM NAME: Urbanna Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E25E_URB01A00 **TMDL MAP ID:** VAP-E25E-06

SEGMENT SIZE: 0.6 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE: 2.50

LATITUDE: 37.63070 **LONGTITUDE:** -76.59870

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Rappahannock River

RIVER MILE: 0.00

LATITUDE: 37.64090 **LONGTITUDE:** -76.56620

Segment comprises the entire estuarine portion of Urbanna Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
Lead, Zinc	Unknown

SUMMARY:

The segment was listed on the 1998 303(d) list because "Sediment monitoring at Route 602/607 bridge (3-URB001.00) 05/02/1997 identified exceedances of the NOAA ER-M screening values for both lead and zinc." The values were actually 139 and 281, respectively, which are below the ER-Ms of 218 for lead and 410 for zinc. Therefore the segment should be removed from the threatened list.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Richmond, Lancaster, Middlesex

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E25E_RPP03A02 **TMDL MAP ID:** VAP-E25E-03

SEGMENT SIZE: 5.06 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: 1 mile upstream of MA97/98-0915

RIVER MILE: 20.53

LATITUDE: 37.70780 **LONGTITUDE:** -76.57080

DOWNSTREAM LIMIT:

DESCRIPTION: 1 mile downstream of MA97/98-0915

RIVER MILE: 18.53

LATITUDE: 37.68140 **LONGTITUDE:** -76.55780

The Rappahannock River from approximately river mile 20.53 to river mile 18.53.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Fish Tissue - Arsenic	Unknown

SUMMARY:

Arsenic in flounder at MAIA stations MA97/98-0915

The source of the impairment is considered unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Lancaster

STREAM NAME: Carter Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26E_CTR03A00 **TMDL MAP ID:** VAP-E26E-20

SEGMENT SIZE: 0.34 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: Notice

LATITUDE: 37.65170 **LONGTITUDE:** -76.41390

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 041F

LATITUDE: 37.65200 **LONGTITUDE:** -76.44210

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation #041F, dated November 10, 1999.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
VDH Shellfish Restriction	Unknown

SUMMARY:

VDH-DSS Shellfish Condemnation 041F, 11/10/1999

Source is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Lancaster

STREAM NAME: Corrotoman River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26E_CRR01A00 **TMDL MAP ID:** VAP-E26E-27

SEGMENT SIZE: 8.97 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE:

LATITUDE: 37.77070 **LONGTITUDE:** -76.47580

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.64530 **LONGTITUDE:** -76.47670

The tidal Corrotoman River and its tidal tributaries.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Benthics	Unknown

SUMMARY:

The segment was assessed as fully supporting but threatened of the Aquatic Life Use support goal because of impairment in the Old Dominion University's random sampling of baywide benthic communities.

The source of the impairment is unknown.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Essex, Richmond

STREAM NAME: Rappahannock River

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26E_RPP02A02 **TMDL MAP ID:** VAP-E26E-34

SEGMENT SIZE: 5.4 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Monitoring station 3-RPP010.60

RIVER MILE: 11.60

LATITUDE: 37.63110 **LONGTITUDE:** -78.48000

DOWNSTREAM LIMIT:

DESCRIPTION: One mile radius

RIVER MILE: 9.60

LATITUDE: 37.62830 **LONGTITUDE:** -78.44440

Rappahannock River, one mile radius around the sampling location at river mile 10.60

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	**IMPAIRMENT SOURCE**
Zinc	Unknown

SUMMARY:

This segment of the Rappahannock River was assessed fully supporting but threatened of the Aquatic Life Use support goal based on an exceedance of the NOAA ER-M ecological screening value for zinc in a sediment sample collected at river mile 10.60 in 1993.

The source of the zinc is considered unknown.

Additional sediment monitoring is recommended to confirm the presence of chlordane, to better delineate the affected segment, and to identify the sources of impairment, if any.

2002 303(d) PART 3 WATERS OF CONCERN FACT SHEET

RIVER BASIN: RAPPAHANNOCK RIVER BASIN

CITY/COUNTY: Middlesex

STREAM NAME: Broad Creek

HYDROLOGIC UNIT: 02080104

SEGMENT ID.: VAP-E26E_BRD01A00 **TMDL MAP ID:** VAP-E26E-25

SEGMENT SIZE: 0.21 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule:** -

UPSTREAM LIMIT:

DESCRIPTION: Tidal Limit

RIVER MILE: 1.00

LATITUDE: 37.55790 **LONGTITUDE:** -76.32510

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Rappahannock River

RIVER MILE: 0.00

LATITUDE: 37.56320 **LONGTITUDE:** -76.31410

Segment comprises all of estuarine portion of Broad Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Threatened, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:	IMPAIRMENT SOURCE
Fecal Coliform	Unknown
Copper, Zinc	

SUMMARY:

The segment was listed on the 1998 list as threatened for the swimmable use goal based on best professional judgment; there are 6 separate VPDES permitted discharges to Broad Creek, a relatively small embayment at the mouth of the Rappahannock River. However, water quality monitoring at 3-BRD000.62 has an acceptable fecal coliform violation rate of 1/21 in the 2002 cycle.

The segment was assessed as threatened of the Aquatic Life Use goal based on a violation of the ER-M value for zinc and copper on 9/5/97.

The source of the copper and zinc contamination is considered unknown.